

CLAIMS

1. Electromagnetic dual-action control valve (1) having a valve housing (2), with at least one magnetic solenoid (3) arranged in the valve housing, with two armatures (4, 5) arranged axially to one another, with respective restoring springs (6, 7) associated with each armature (4, 5), with line connections (15, 16, 17) for lines carrying a pressure medium and with sealing surfaces on the armatures (4, 5) that can be moved by magnetic force so as to close or open the line connections (15, 16, 17), characterized in that one of the armatures is formed as a hollow armature (4) with a closed end face (11), inside which is arranged an inner armature (5) which can move coaxially thereto, and the hollow armature (4) has openings (20, 21) for the pressure medium, of which one opening (21) can be closed by a sealing surface (13) of the inner armature (5).

2. Electromagnetic dual-action control valve according to claim 1, characterized in that the opening (21) that can be closed is formed in the closed end face (11) of the hollow armature (4).

3. Electromagnetic dual-action control valve according to claims 1 or 2, characterized in that the restoring spring (7) for the hollow armature (4) is arranged at the end (8) of the said armature (4) which is opposite to the closed end (11).

4. Electromagnetic dual-action control valve according to claims 1 or 2, characterized in that the restoring spring (6) for the inner armature (5) is arranged at the end (9) of the said inner armature (5) which is opposite to the sealing surface (13) for closing the opening (21) of the hollow armature (4).

5. Electromagnetic dual-action control valve according to at least one of the preceding claims, characterized in that the dual-action control valve (1, 52) is formed as a clutch control valve, which has a connection (16) for a pressure line, a connection (15) for a return line and a connection (17) for a control pressure line.

6. Electromagnetic dual-action control valve according to at least one of the preceding claims, characterized in that the dual-action control valve (1, 52) is formed as a switching or fixed-cycle valve, which has a connection (16) for a

pressure line, a connection (15) for a return line and a connection (17) for a control pressure line.

7. Electromagnetic dual-action control valve according to at least one of the preceding claims, characterized in that at its end (9) associated with the restoring spring (6), the inner armature (5) has an end sealing surface (22) by means of which a line connection (15) can be closed.

8. Electromagnetic dual-action control valve according to claim 7, characterized in that a line connection (15) for a back-flow or return line can be closed by the sealing surface (22) of the inner armature (5) nearest the restoring spring.

9. Electromagnetic dual-action control valve according to at least one of the preceding claims, characterized in that the opening (21) in the hollow armature (4) has a smaller cross-sectional area than the cross-sectional areas of the connection (16) for the pressure line and/or the connection (17) for the control pressure line.

10. Electromagnetic dual-action control valve according to the preamble of claim 1 and at least one of the preceding claims, characterized in that the two armatures (39, 43) are arranged axially one behind the other, one armature is formed as a hollow armature (39) with an axial bore (42), the bore (42) is directed coaxially to the connection (16) for a pressure line, the hollow armature (39) has a first sealing surface (46) by means of which this connection (16) can be closed in a pressure-tight way, and at the end of the hollow armature (39) opposite the said first sealing surface (46) is formed a second sealing surface (47), against which the first end face (48) of the second armature (43) facing toward the hollow armature (29) can be brought into contact to close off the bore (47), and the second armature (43) has at its end facing away from the hollow armature (39) a second sealing surface (49), by means of which a further connection (15) for a return line can be closed.

11. Electromagnetic dual-action control valve according to at least one of the preceding claims, characterized in that between the sealing surfaces and the

ends of the armatures (39, 43) or the valve housing (2) are arranged sealing means (50), preferably sealing rings.

12. Electromagnetic dual-action control valve according to at least one of the preceding claims characterized in that the second armature (43) is guided axially by a section (51) of the housing.